

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: 189P107

Luminaire Tested: **PGX-232S16I-PAF**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 189P107
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: PGX-232S16I-PAF
Description: 1 X 4 Recessed Convertible Body Troffer with a
4" deep 6 cell semi-specular low iridescent
parabolic louver.
Light Source: Two - FO32T8/35K - 2800 Lumens ea. - 32 Watts ea.
Ballast/Driver: Magnetek B2321120RH Electronic - L.O.B.F. = 87.6

Summary

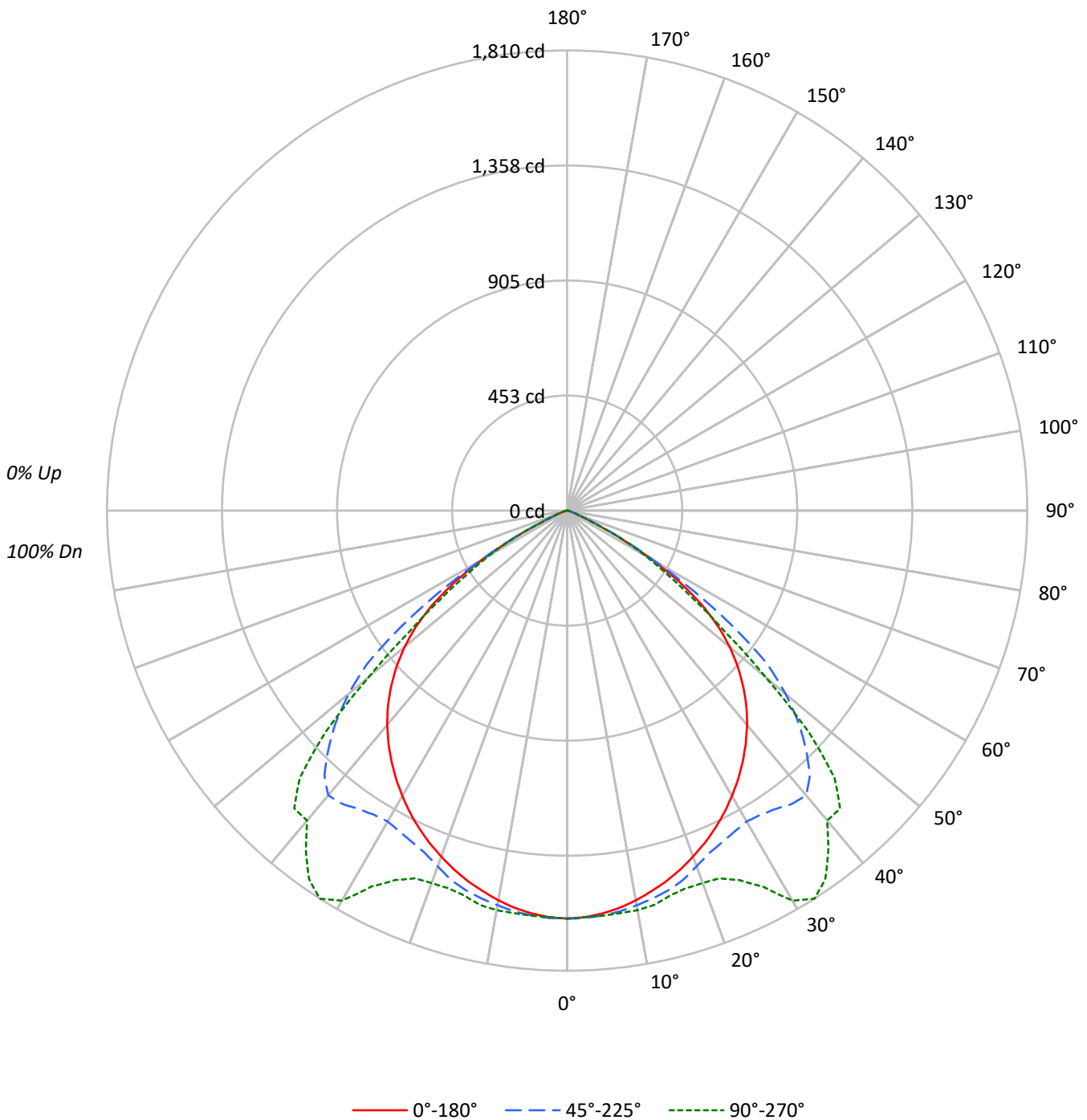
Lumens per Lamp: 2800 (2 lamps)
Luminaire Lumens: 3963.0 lumens
Efficiency: 70.8%
Efficacy: 68.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.58 / 1.51
Luminous Opening: Rectangular (W 0.74' x L: 3.75' x H: 0')
CIE Type: Direct

Input Watts (W): 58.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | |
|-----|----|----|----|----|----|----|----|----|----|----|----|--|----|----|----|--|----|----|----|----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 | | | |
| RC | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 | 0 | | |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | | 50 | 30 | 10 | | 50 | 30 | 10 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | |
| 0 | 84 | 84 | 84 | 84 | 82 | 82 | 82 | 82 | 79 | 79 | 79 | | 75 | 75 | 75 | | 72 | 72 | 72 | 71 |
| 1 | 79 | 76 | 74 | 72 | 77 | 75 | 72 | 70 | 72 | 70 | 68 | | 69 | 68 | 66 | | 66 | 65 | 64 | 63 |
| 2 | 73 | 68 | 64 | 61 | 71 | 67 | 63 | 60 | 64 | 61 | 59 | | 62 | 60 | 57 | | 60 | 58 | 56 | 55 |
| 3 | 67 | 61 | 56 | 52 | 66 | 60 | 55 | 52 | 58 | 54 | 51 | | 56 | 53 | 50 | | 54 | 51 | 49 | 48 |
| 4 | 62 | 55 | 49 | 45 | 60 | 54 | 49 | 45 | 52 | 48 | 44 | | 50 | 47 | 44 | | 49 | 46 | 43 | 42 |
| 5 | 57 | 49 | 43 | 39 | 56 | 48 | 43 | 39 | 47 | 42 | 39 | | 46 | 41 | 38 | | 44 | 41 | 38 | 36 |
| 6 | 53 | 44 | 39 | 34 | 52 | 44 | 38 | 34 | 42 | 38 | 34 | | 41 | 37 | 34 | | 40 | 36 | 33 | 32 |
| 7 | 49 | 40 | 35 | 31 | 48 | 40 | 34 | 30 | 39 | 34 | 30 | | 38 | 33 | 30 | | 37 | 33 | 30 | 28 |
| 8 | 46 | 37 | 31 | 27 | 45 | 36 | 31 | 27 | 35 | 30 | 27 | | 35 | 30 | 27 | | 34 | 30 | 27 | 25 |
| 9 | 43 | 34 | 28 | 24 | 42 | 33 | 28 | 24 | 33 | 28 | 24 | | 32 | 27 | 24 | | 31 | 27 | 24 | 23 |
| 10 | 40 | 31 | 26 | 22 | 39 | 31 | 26 | 22 | 30 | 25 | 22 | | 29 | 25 | 22 | | 29 | 25 | 22 | 21 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 6229 | 6229 | 6229 |
| 5° | 6198 | 6229 | 6233 |
| 10° | 6136 | 6211 | 6290 |
| 15° | 6063 | 6208 | 6296 |
| 20° | 5980 | 6150 | 6439 |
| 25° | 5901 | 6166 | 6869 |
| 30° | 5808 | 6328 | 7937 |
| 35° | 5704 | 6785 | 8386 |
| 40° | 5578 | 7407 | 8060 |
| 45° | 5379 | 7294 | 8161 |
| 50° | 5035 | 6774 | 6146 |
| 55° | 4378 | 5413 | 4121 |
| 60° | 2973 | 3097 | 2763 |
| 65° | 1084 | 1258 | 1056 |
| 70° | 340 | 420 | 420 |
| 75° | 195 | 240 | 240 |
| 80° | 134 | 156 | 156 |
| 85° | 89 | 134 | 134 |



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CATALOG NUMBER: PGX-232S16I-PAF

ZONAL LUMENS:

CANDELA DISTRIBUTION:

| Zone | Lumens | % Fixture | % Lamp | | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----------|--------|-----------|--------|------|------|-------|------|-------|------|------|
| 0°-10° | 151.9 | 3.8 | 2.7 | 0° | 1605 | 1605 | 1605 | 1605 | 1605 | |
| 10°-20° | 435.3 | 11.0 | 7.8 | 5° | 1591 | 1593 | 1599 | 1605 | 1600 | 151 |
| 20°-30° | 681.9 | 17.2 | 12.2 | 15° | 1509 | 1517 | 1545 | 1566 | 1567 | 425 |
| 30°-40° | 910.1 | 23.0 | 16.3 | 25° | 1378 | 1400 | 1440 | 1537 | 1604 | 635 |
| 40°-50° | 957.6 | 24.2 | 17.1 | 35° | 1204 | 1237 | 1432 | 1703 | 1770 | 753 |
| 50°-60° | 640.8 | 16.2 | 11.4 | 45° | 980 | 1079 | 1329 | 1430 | 1487 | 753 |
| 60°-70° | 163.4 | 4.1 | 2.9 | 55° | 647 | 838 | 800 | 627 | 609 | 563 |
| 70°-80° | 18.8 | 0.5 | 0.3 | 65° | 118 | 133 | 137 | 138 | 115 | 150 |
| 80°-90° | 3.1 | 0.1 | 0.1 | 75° | 13 | 15 | 16 | 17 | 16 | 16 |
| 90°-100° | 0.0 | 0.0 | 0.0 | 85° | 2 | 2 | 3 | 3 | 3 | 3 |
| 100°-110° | 0.0 | 0.0 | 0.0 | 90° | 0 | 0 | 0 | 0 | 0 | 0 |
| 110°-120° | 0.0 | 0.0 | 0.0 | 95° | 0 | 0 | 0 | 0 | 0 | 0 |
| 120°-130° | 0.0 | 0.0 | 0.0 | 105° | 0 | 0 | 0 | 0 | 0 | 0 |
| 130°-140° | 0.0 | 0.0 | 0.0 | 115° | 0 | 0 | 0 | 0 | 0 | 0 |
| 140°-150° | 0.0 | 0.0 | 0.0 | 125° | 0 | 0 | 0 | 0 | 0 | 0 |
| 150°-160° | 0.0 | 0.0 | 0.0 | 135° | 0 | 0 | 0 | 0 | 0 | 0 |
| 160°-170° | 0.0 | 0.0 | 0.0 | 145° | 0 | 0 | 0 | 0 | 0 | 0 |
| 170°-180° | 0.0 | 0.0 | 0.0 | 155° | 0 | 0 | 0 | 0 | 0 | 0 |
| 0°-30° | 1269.1 | 32.0 | 22.7 | 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 0°-40° | 2179.3 | 55.0 | 38.9 | 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 0°-60° | 3777.6 | 95.3 | 67.5 | 180° | 0 | 0 | 0 | 0 | 0 | 0 |
| 0°-90° | 3963.0 | 100.0 | 70.8 | | | | | | | |
| 90°-120° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 90°-150° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 90°-180° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 0°-180° | 3963.0 | 100.0 | 70.8 | | | | | | | |



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CATALOG NUMBER: PGX-232S16I-PAF

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|------|-------|------|-------|------|
| 0° | 1605 | 1605 | 1605 | 1605 | 1605 |
| 2.5° | 1601 | 1601 | 1604 | 1607 | 1600 |
| 5° | 1591 | 1593 | 1599 | 1605 | 1600 |
| 7.5° | 1576 | 1580 | 1590 | 1601 | 1597 |
| 10° | 1557 | 1562 | 1576 | 1595 | 1596 |
| 12.5° | 1533 | 1541 | 1562 | 1588 | 1588 |
| 15° | 1509 | 1517 | 1545 | 1566 | 1567 |
| 17.5° | 1480 | 1491 | 1522 | 1542 | 1557 |
| 20° | 1448 | 1463 | 1489 | 1534 | 1559 |
| 22.5° | 1415 | 1433 | 1459 | 1527 | 1565 |
| 25° | 1378 | 1400 | 1440 | 1537 | 1604 |
| 27.5° | 1339 | 1365 | 1424 | 1570 | 1667 |
| 30° | 1296 | 1325 | 1412 | 1627 | 1771 |
| 32.5° | 1252 | 1282 | 1418 | 1704 | 1810 |
| 35° | 1204 | 1237 | 1432 | 1703 | 1770 |
| 37.5° | 1154 | 1195 | 1454 | 1642 | 1688 |
| 40° | 1101 | 1155 | 1462 | 1552 | 1591 |
| 42.5° | 1043 | 1118 | 1413 | 1459 | 1589 |
| 45° | 980 | 1079 | 1329 | 1430 | 1487 |
| 47.5° | 911 | 1041 | 1235 | 1287 | 1289 |
| 50° | 834 | 998 | 1122 | 1072 | 1018 |
| 52.5° | 749 | 936 | 993 | 818 | 783 |
| 55° | 647 | 838 | 800 | 627 | 609 |
| 57.5° | 525 | 689 | 591 | 478 | 464 |
| 60° | 383 | 490 | 399 | 354 | 356 |
| 62.5° | 236 | 278 | 251 | 245 | 244 |
| 65° | 118 | 133 | 137 | 138 | 115 |
| 67.5° | 53 | 65 | 66 | 67 | 60 |
| 70° | 30 | 36 | 37 | 40 | 37 |
| 72.5° | 19 | 23 | 24 | 26 | 24 |
| 75° | 13 | 15 | 16 | 17 | 16 |
| 77.5° | 9 | 10 | 11 | 11 | 11 |
| 80° | 6 | 7 | 7 | 8 | 7 |
| 82.5° | 4 | 4 | 4 | 5 | 5 |
| 85° | 2 | 2 | 3 | 3 | 3 |
| 87.5° | 1 | 1 | 1 | 1 | 1 |
| 90° | 0 | 0 | 0 | 0 | 0 |
| 92.5° | 0 | 0 | 0 | 0 | 0 |
| 95° | 0 | 0 | 0 | 0 | 0 |
| 97.5° | 0 | 0 | 0 | 0 | 0 |
| 100° | 0 | 0 | 0 | 0 | 0 |
| 102.5° | 0 | 0 | 0 | 0 | 0 |
| 105° | 0 | 0 | 0 | 0 | 0 |
| 107.5° | 0 | 0 | 0 | 0 | 0 |
| 110° | 0 | 0 | 0 | 0 | 0 |



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CATALOG NUMBER: PGX-232S16I-PAF

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|----|-------|-----|-------|-----|
| 112.5° | 0 | 0 | 0 | 0 | 0 |
| 115° | 0 | 0 | 0 | 0 | 0 |
| 117.5° | 0 | 0 | 0 | 0 | 0 |
| 120° | 0 | 0 | 0 | 0 | 0 |
| 122.5° | 0 | 0 | 0 | 0 | 0 |
| 125° | 0 | 0 | 0 | 0 | 0 |
| 127.5° | 0 | 0 | 0 | 0 | 0 |
| 130° | 0 | 0 | 0 | 0 | 0 |
| 132.5° | 0 | 0 | 0 | 0 | 0 |
| 135° | 0 | 0 | 0 | 0 | 0 |
| 137.5° | 0 | 0 | 0 | 0 | 0 |
| 140° | 0 | 0 | 0 | 0 | 0 |
| 142.5° | 0 | 0 | 0 | 0 | 0 |
| 145° | 0 | 0 | 0 | 0 | 0 |
| 147.5° | 0 | 0 | 0 | 0 | 0 |
| 150° | 0 | 0 | 0 | 0 | 0 |
| 152.5° | 0 | 0 | 0 | 0 | 0 |
| 155° | 0 | 0 | 0 | 0 | 0 |
| 157.5° | 0 | 0 | 0 | 0 | 0 |
| 160° | 0 | 0 | 0 | 0 | 0 |
| 162.5° | 0 | 0 | 0 | 0 | 0 |
| 165° | 0 | 0 | 0 | 0 | 0 |
| 167.5° | 0 | 0 | 0 | 0 | 0 |
| 170° | 0 | 0 | 0 | 0 | 0 |
| 172.5° | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 |
| 177.5° | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)